in five patients at a median follow-up of 26 months (range, 1-87; mean, 29 months). One patient's procedure was complicated by aphasia and contralateral hemiplegia. This patient also subsequently developed a contralateral stroke and died 4 months after the procedure. An additional patient developed ipsilateral TIAs 3 weeks after stenting and subsequently underwent an extracranial-to-intracranial bypass, with no further symptoms. There was no apparent symptomatic in-stent restenosis, although >50% in-stent restenosis was noted in two patients on follow-up.

Comment: Stenting of the ECA is an unusual procedure. (The article actually has more authors, 14, than patients, 12!) The results are certainly not a mandate for ECA stenting for apparently symptomatic ECA stenosis. However, there are also no compelling data for open revascularization of the ECA. Revascularization of the ECA, whether by endovascular or open surgical treatment, is supported by nothing more than individual case series and is never likely to be supported by anything other than case series.

Use of Baseline Factors to Predict Complications and Reinterventions After Endovascular Repair of Abdominal Aneurysm

Brown LC, Greenhalgh RM, Powell JT, and the EVAR Trial Participants. Br J Surg 2010;97:1207-17.

Conclusion: Graft-related complications and reinterventions after endovascular aneurysm repair (EVAR) are more common in older patients and in patients with larger aneurysms.

Summary: The authors sought to determine baseline factors that were associated with graft-related complications and reinterventions after EVAR. The analysis consisted of patients randomized to elective EVAR in the EVAR 1 or 2 trials. Patients were followed-up for serious graft-related complications, defined as graft rupture, proximal or distal graft migration, proximal or distal type 1 endoleak, type 3 endoleak (loss of structural integrity, modular disconnection, stent fracture, fabric tear or holes), graft kinking or thrombosis, graft infection, renal infarction, unsuccessful deployment, and conversion to open repair for any complication, including type 2 endoleak or endotension. Patients were also followed-up for reintervention. Reintervention criteria were not specified in the original EVAR trial protocols, and reinterventions were based on local decisions. Cox regression analysis was used to investigate if prespecified baseline factors were associated with time, serious complication, or reintervention.

A total of 756 patients had elective EVAR and were followed-up for a mean of 3.7 years. There were 179 serious graft complications (rate, 6.5/100 person-years) and 114 reinterventions (rate, 3.8/100 person-years). The highest rates were during the first 6 months, with apparent increased rates again after 2 years. Multivariable analysis indicated graft-related complications increased with larger initial aneurysm diameter ($P < .001$) and older age ($P = .040$). Some evidence suggested that patients treated with the Excluder device (W.L. Gore & Associates, Flagstaff, Ariz) had lower rates of complications and reinterventions compared with other graft types. Patients with larger common iliac diameters also appeared to experience higher complication rates ($P = .011$).

Comment: The association of increasing aneurysm diameter and increasing age with complication and reintervention rates after EVAR stand out as the most telling findings in this study. The results, however, really cannot be construed to justify EVAR in younger patients with small abdominal aortic aneurysms, because rupture rates are low in these patients (Powell JT, Br J Surg 2007;94:702-8; and Lederle FA, N Engl J Med 2002;346:1437-44). It also important to note that the inclusion criteria for patients in the EVAR 1 and 2 trials were relatively strict. Relaxing anatomic selection criteria undoubtedly will result in higher complication and reintervention rates. Appropriate selection of anatomically suitable patients for EVAR remains crucial to the long-term success of the procedure.